## World Academy of Science, Engineering and Technology International Journal of Materials and Metallurgical Engineering Vol:11, No:11, 2017

## The Role of Physically Adsorbing Species of Oxyhydryl Reagents in Flotation Aggregate Formation

Authors: S. A. Kondratyev, O. I. Ibragimova

**Abstract :** The authors discuss the collecting abilities of desorbable species (DS) of saturated fatty acids. The DS species of the reagent are understood as species capable of moving from the surface of the mineral particle to the bubble at the moment of the rupture of the interlayer of liquid separating these objects of interaction. DS species of carboxylic acids (molecules and ionic-molecular complexes) have the ability to spread over the surface of the bubble. The rate of their spreading at pH 7 and 10 over the water surface is determined. The collectibility criterion of saturated fatty acids is proposed. The values of forces exerted by the spreading DS species of reagents on liquid in the interlayer and the liquid flow rate from the interlayer are determined.

Keywords: criterion of action of physically adsorbed reagent, flotation, saturated fatty acids, surface pressure

 $\textbf{Conference Title:} ICMMPME\ 2017: International\ Conference\ on\ Mining,\ Mineral\ Processing\ and\ Metallurgical\ Engineering$ 

Conference Location : Venice, Italy
Conference Dates : November 13-14, 2017